



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/023,294

12/17/2001

Donald Norman Spitz

2001-0617.00

7667

7590

04/23/2004

TAYLOR & AUST, P.C.
12029 E. Washington St.
Indianapolis, IN 46229

EXAMINER

LIANG, LEONARD S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,294

Applicant(s)

SPITZ ET AL.

Examiner

Leonard S Liang

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-12,17-23 and 28-31 is/are rejected.
- 7) ☒ Claim(s) 3-6,13-16 and 24-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1, 11, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al (US Pat 6402290).

Johnson et al discloses:

- {claim 1} A maintenance station for a printer (figure 2); a fixed support housing (the printer housing as a whole); a sled supported on the support housing and being movable relative to the support housing in both a horizontal direction and a vertical direction (figure 2, reference 72; column 4, lines 1-33); a spit containment device configured to receive spit ink, the spit containment device having a fixed

vertical position and being horizontally movable in response to movement of the sled (figure 2, reference 124; column 2, lines 26-31)

- {claim 11} An ink jet printer, a printhead (column 1, lines 8-15); a maintenance station including a fixed support housing (figure 2; the printer housing as a whole serves as fixed support housing); a sled supported on the support housing and being movable relative to the support housing in both a horizontal direction and a vertical direction (figure 2, reference 72; column 4, lines 1-33); a spit containment device configured to receive ink spit from the printhead, the spit containment device having a fixed vertical position relative to the printhead and being horizontally movable in response to movement of the sled (figure 2, reference 124; column 2, lines 26-31)
- {claim 22} A maintenance station for a printer (figure 2); a fixed support housing (the printer housing as a whole); a sled supported on the support housing and being movable relative to the support housing in both a horizontal direction and a vertical direction (figure 2, reference 72; column 4, lines 1-33); a spit containment device configured to receive spit ink, the ink containment device having a fixed vertical position and being horizontally movable relative to the support housing (figure 2, reference 124; column 2, lines 26-31)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2853

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 7-10, 12, 17-20, 23, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US Pat 6402290) in view of Lou et al (US Pat 5997128).

Johnson et al discloses:

- {claims 2, 7-8, and 10} A maintenance station (as applied to claim 1)
- {claim 9, 19, and 30} at least one of a printhead cap and a printhead wiper attached to the sled (figure 2, reference 126)
- {claims 12, 17-18, and 20} A printer (as applied to claim 11)
- {claims 23, 28-29, and 31} A maintenance station (as applied to claim 22)

Johnson et al differs from the claimed invention in that it does not disclose:

- {claims 2, 12, and 23} the spit containment device comprises a chimney
- {claim 7, 17, and 28} the sled includes an opening, the chimney being received in the opening
- {claims 8, 18, and 29} the opening includes at least one substantially vertical slot, the chimney having at least one substantially vertical rib, each rib being received in a corresponding vertical slot
- {claims 10, 20, and 31} the chimney is disposed adjacent to the at least one of a printhead cap and a printhead wiper

Lou et al discloses that the spit containment device comprises a chimney (column 2, lines 6-10).

Art Unit: 2853

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the chimney disclosed by Lou et al into the invention of Johnson et al. The motivation for the skilled artisan in doing so is to gain the benefit of collecting spit ink below other service station components (column 2, lines 6-10). The combination naturally suggests the sled includes an opening, the chimney being received in the opening; the opening includes at least one substantially vertical slot, the chimney having at least one substantially vertical rib, each rib being received in a corresponding vertical slot (The spittoon opening 108 disclosed in Johnson et al figure 8 can be considered a slot, and thus the chimney disclosed by Lou et al that is inserted into the flat spittoon opening could be considered the projection or rib that is received by the slot); the chimney is disposed adjacent to the at least one of a printhead cap and a printhead wiper.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US Pat 6402290) in view of Lou et al (US Pat 5997128), as applied to claim 12 above, and further in view of Vega et al (US Pgpub 20020158941).

Johnson et al in view of Lou et al teaches all limitations of the claimed invention except for the following: a gap between the chimney and the printhead is not greater than approximately 1.0 mm when the chimney receives the ink spit from the printhead.

Vega et al discloses, with respect to claim 21, reducing spitting distance to 1.0 mm (page 4, column 1, paragraph 56; page 5, column 1, paragraph 56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Vega et al into the invention of modified

Art Unit: 2853

Johnson et al in view of Lou et al so that the spitting distance is reduced to 1.0 mm. The motivation for the skilled artisan in doing so is to gain the benefit of efficiently reducing aerosol effect (page 5, column 1, paragraph 5). The combination naturally suggests that a gap can be configured between the chimney and the printhead so that it is not greater than approximately 1.0 mm when the chimney receives the ink spit from the printhead.

Allowable Subject Matter

4. Claims 3-6, 13-16, and 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3, 13, and 24 discloses “the support housing is coupled to the chimney,” which was not found, taught, or disclosed in the prior arts.

Claims 4-6, 14-16, and 25-27 depend from objected claims 3, 13, and 24.

Response to Arguments

5. Applicant’s arguments, see Appeal Brief, filed 01/15/04, with respect to claims 1-31 have been fully considered and are persuasive. Prosecution of the case is re-opened. Though the same prior art is still used to reject as before, the examiner’s interpretation of Johnson et al has changed, and this new non-final action reflects that change in interpretation.

Conclusion

Art Unit: 2853

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aldrich (US Pat 6168257) discloses a maintenance station for an ink cartridge for a printer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (703) 305-4754. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (703) 308-4896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lsl

LSL


Stephen D. Meier
Primary Examiner